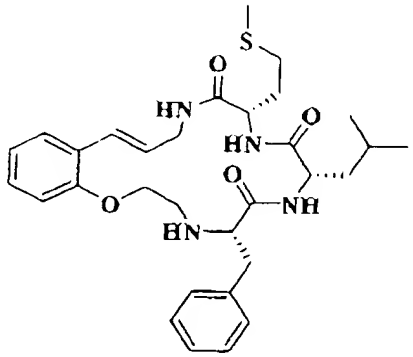
Election/Restrictions:

In response to the election requirement, the Applicant hereby elects claims 1 to 10 drawn to product described as a "*macrocyclic compound*" comprising general formula I.

The following species of claim 1 is hereby elected with traverse:



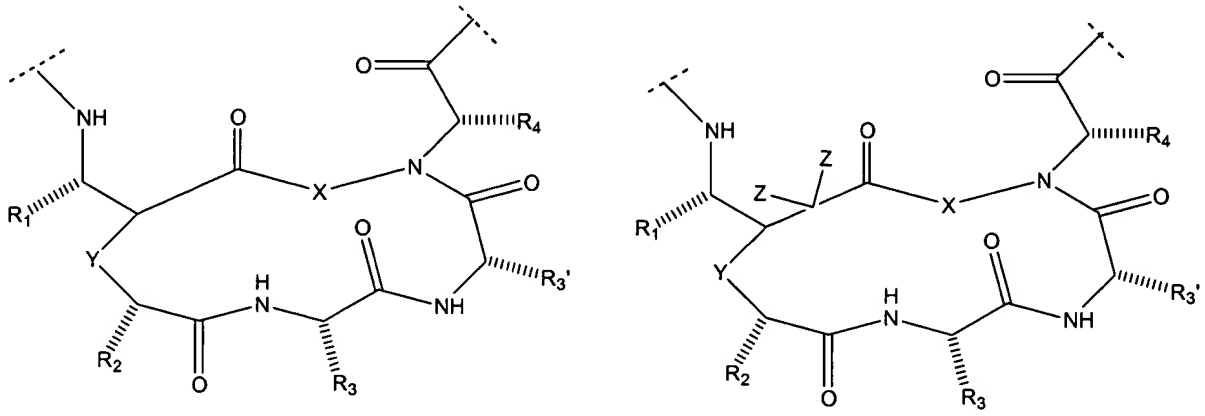
In view of this election, the objections raised in paragraphs 3 and 7 to 16 no longer apply.

The Applicant respectfully traverses the requirement to limit the claims presently on file to a single compound, for the following reasons:

The election of a single species (as outlined in points 5 and 6) is unnecessarily restrictive.

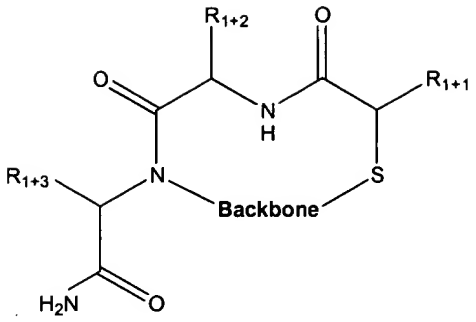
The use of generic formulas for closely related chemical species is a well-established practice in the art. The building blocks mentioned in claim 1 that comprise substructures A, B and C of the claim are, for the most part, amino acids. It is well-established that appropriately protected amino acids, such as those claimed in the invention, can be interchanged in many types of reactions. Indeed, this is one of the characteristics that have made amino acid derivatives so useful for the purposes of combinatorial chemistry. Further, synthetic peptide chemistry has been founded upon the ability to assemble the individual amino acids in a stepwise fashion through a series of N-deprotection and coupling steps to form amide bonds. This stepwise nature has allowed the automation of the synthetic process. These are the same steps that are employed in the current invention. Therefore, it is reasonable for someone skilled in the art to recognize that the steps leading to the "first building block" can be conducted interchangeably on a wide range of appropriately protected amino acid derivatives.

In other patents that describe routes to conformationally-restricted peptidomimetics, generic claims similar to those in the current application have been allowed. For example, US 5,618,914 describes structures such as that below, wherein the various R groups are defined based upon naturally-occurring amino acid side chains and X is defined as a `linker moiety terminating in an amino or hydrazine group." The X is further defined within the description as being taken from a Table (presented as Figure 2 of US 5,618,914) of possible structures, many of which also contain R groups and variable chain lengths.

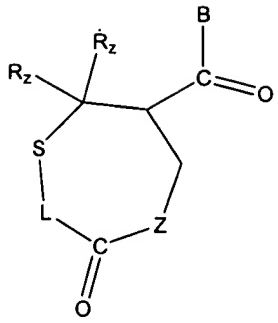


US 5,618,914 Claim 1

For examples in patents relevant to the subject matter of this application, see US 5,811,392 and US 6,407,059, which describe the synthesis and utility of backbone-cyclized peptides, one of the first approaches to the construction of conformationally-defined libraries, and US 5,824,483, which uses larger peptides in conformationally-controlled libraries. Additional support is provided by US 5,545,568 and W098/146631, each of which describes different types of macrocyclic peptidomimetics of the structures shown below utilizing a number of generic designations.



US 5,545,568
Compound 96



WO-A-9846631
Claim 1, Compound 1

In particular, for the latter, the group Z actually contains additional generic identifiers for amino acids and other building elements that are then further defined. Similarly, the "Backbone" designation in US 5,545,568 is further described generically as possessing the preferred structure HS-CRR'$(CH_2)_n$CR"R"'-NH_2, with additional listings of a wide variety of acceptable R substituents. The sense and identity of these structures, although generic and encompassing a wide selection of possible individual compounds, is clear to practitioners of the art.

Likewise, for the macrocyclic structures in claims 1-9 of the current application, the listings of possible building elements and substituents should be understandable to one skilled in the art and are significant due to:

- the generality of the synthetic methods relative to the prior art;
- the substituents within the listings are those that someone skilled in the art would understand and accept in the context of this synthetic method as clear and concise and are consistent with existing patents in the general subject area of the invention, that being peptidomimetic macrocycles;
- the novelty of the structures created as part of the invention; the listings within the claims are a direct consequence of the ability to apply the synthetic method to the synthesis of libraries of unique, diverse molecules and is necessary to be of greatest utility in drug discovery.

The building elements listed in Claims 1-9 are all based on the standard amino acids found encoded naturally by the genetic code (termed proteiogenic). In addition, all the other R group definitions presented relate to homologues or derivatives of these standard amino acids, many of which are available commercially. It will be understood to someone skilled in the art that these amino acids or appropriately protected derivatives thereof can all be employed essentially interchangeably in the synthetic steps, most of which are standard amide bond forming peptide coupling reactions, claimed.

The listing of substructures for L within claim 1 and associated claims 2-9 in the application contain structural features well established and known to one skilled in the art to be useful for restricting conformation. This includes multiple carbon-carbon bonds, aromatic and aliphatic rings along with appropriate functionality and varying lengths. As listed, this collection is also consistent with the presentation in US 5,618,914 where X in claims 1, 4, 5, 6 is listed in table 1 of the patent and consists of an extensive set of alkenes, alkynes and substituted or chain extended derivatives thereof. Further, in claims 7, 8 and 9 of that patent, X is defined from a set of structures including substituted cycloalkyl and aromatic rings, with substituents of varying lengths. The current application has a similar reasonable listing of generally accepted conformation ally restricted moieties for inclusion within the tether component of its structure.

Finally, it will not involve substantial additional work to search the claims for the other invention group.

By virtue of the cancellation of claims 11-25, Luc Ouellet and Ruoxi Lan are being deleted as inventors and a request for such deletion, together with a check for the small entity processing fee are enclosed herewith.

It is respectfully submitted that all of the claims in this application should be examined on the merits. A prompt Official Action on the merits of all claims is respectfully requested.

Respectfully Submitted,

Date: 7/15/02

By: _____

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